Volume 20 No. 2 www.iijwm.com Fall 2017

The Journal *of* Wealth Management

The 50% Rule: *Keep More Profit in Your Wallet*

Stuart E. Lucas and Alejandro Sanz

IIJ Institutional Investor Journals

The Voices *of* Influence | www.iijournals.com

The 50% Rule: *Keep More Profit in Your Wallet*

Stuart E. Lucas and Alejandro Sanz

Stuart E. Lucas
is chairman of Wealth Strategist Partners LLC and an adjunct professor of finance in the Booth School of Business at the University of Chicago in Chicago, IL.
stuart@wspcio.com

Alejandro Sanz
is an investment analyst at Wealth Strategist Partners in Chicago, IL.
alejandro@wspcio.com

The confidence people have in their beliefs is not a measure of the quality of evidence but of the coherence of the story the mind has managed to construct.

—Daniel Kahneman (Lewis [2016])

What portion of the profits from your investments ends up in your wallet? This is a simple and important question, but getting the answer is cumbersome. It varies enormously depending on personal circumstances, investment strategy, and structure. Financial advisor compensation is at best largely independent of the answer and may be a disincentive to careful analysis, and most performance measurement systems cannot give the answer. As a result, rarely do taxable investors or their advisors carefully consider the question when designing an investment strategy. This is a shame because the answer to this simple question is manageable, and the implications will have a huge impact on investors' wealth.

In this article, we offer an analysis to show how wide the range of answers can be and offer some suggestions for how to manage taxable portfolios more effectively. We call the bottom line *the 50% rule*: If you do not get to keep at least 50% of your profits after accounting for leakages to pay taxes and investment management fees, you should reassess your approach. This simple guideline can and should inform investment strategy, the managers chosen, and how to evaluate results.

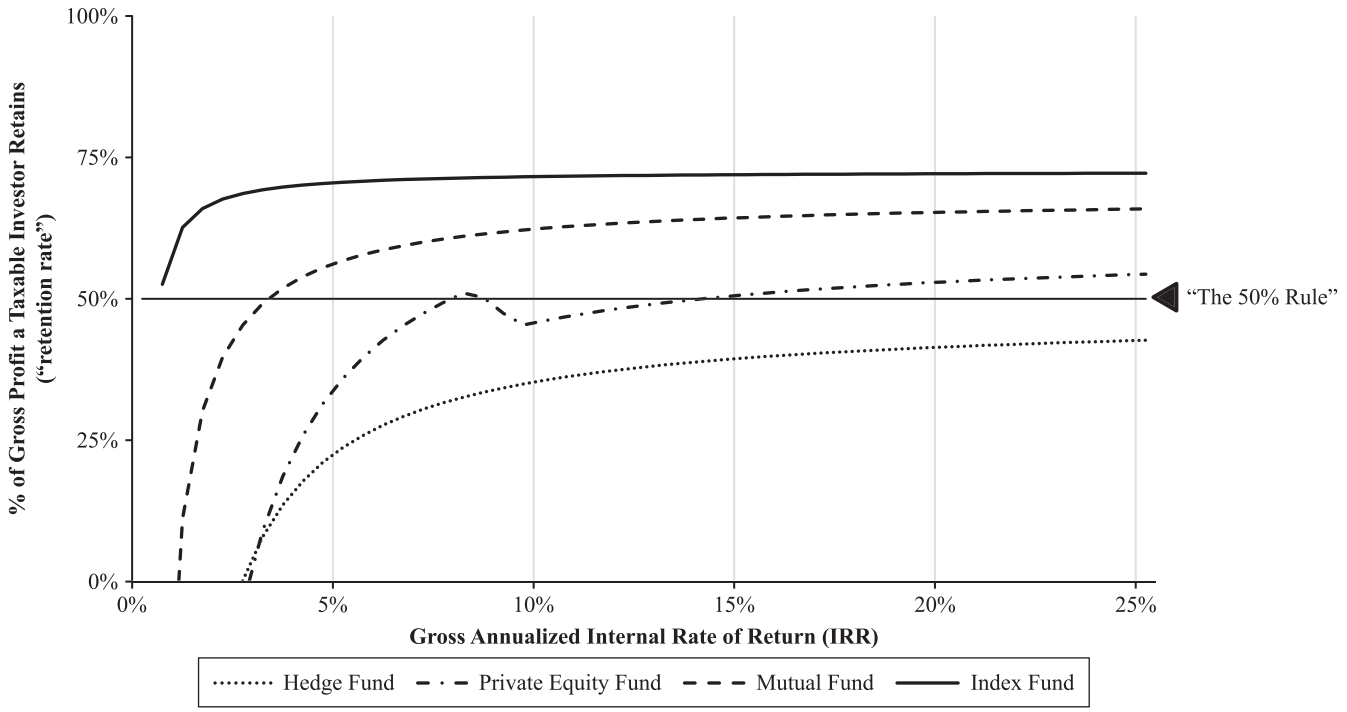
THE 50% RULE FOR TAXABLE INVESTORS

When a taxable investor makes investments, the gross investment profit is apportioned to three beneficiaries: tax authorities, investment professionals, and the investor. Because the *retention rate*—the percentage of gross profits the investor actually keeps—varies considerably by investment strategy and structure, we highlight in Exhibit 1 four examples for a typical wealthy Illinois resident: an equity index mutual fund, an actively managed equity mutual fund, a private equity fund, and a hedge fund.[1] In this example, the Illinois resident pays federal and Illinois tax at the highest 2016 alternative minimum tax (AMT) rate. The fees charged by the two mutual funds are tax deductible; the private equity and hedge fund fees are not. Taxable investors who are wealthy enough to invest directly in private equity funds and hedge funds usually cannot offset their tax payments by the management fee.[2]

The shapes of the curves in Exhibit 1 are not intuitive, but the underlying rationale for their shapes is important: Their shapes are a function of the structure of management fees and the tax burden. Management fees are usually structured as a percentage of

EXHIBIT 1

Consider Carefully Whether Investors Are Set to Retain >50% of Gross Profits



assets: a preferred return. In other words, managers get paid regardless of whether they generate profits, and the lower the profit they generate, the greater the proportion of that profit that leaks out to them. Even if capital generates a negative return, management fees are still paid. Although frustrating for the investor, it is reasonable for managers to earn enough to stay in business and to retain their top talent, even if the environment is challenging. Investors usually have the option of redeeming their capital and ending the fee stream if results continue to suffer.

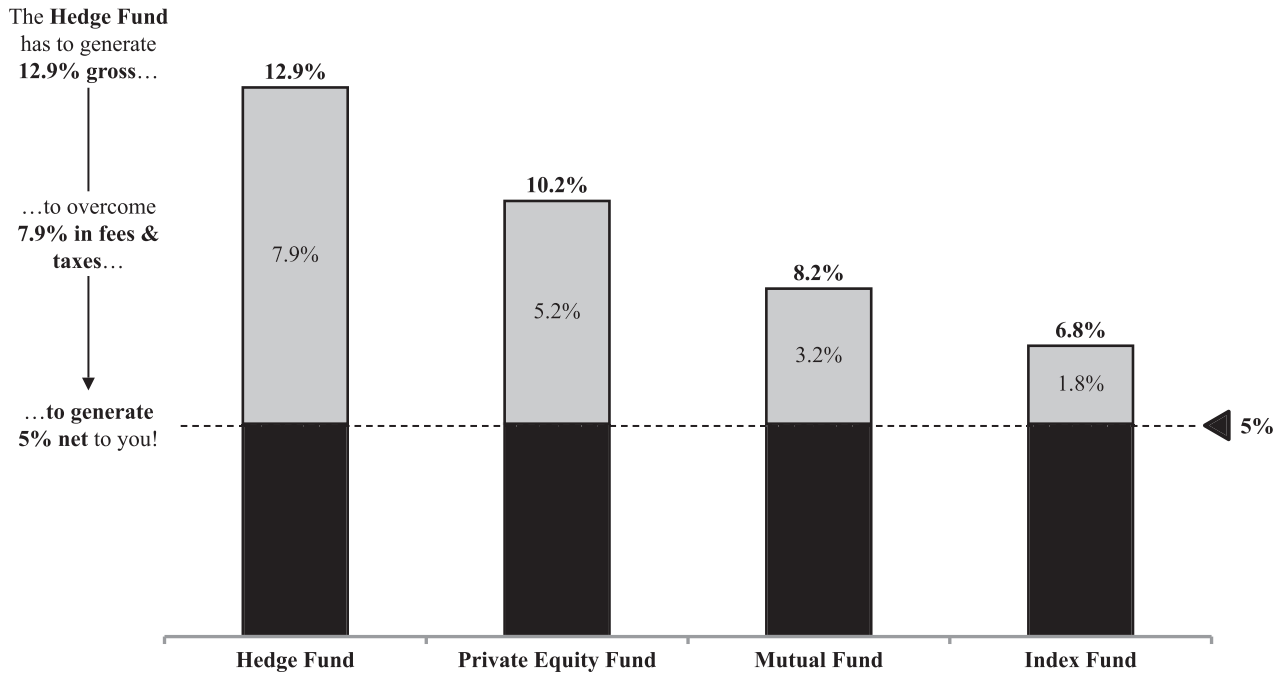
In addition to management fees, private equity and hedge funds charge carried interest, based upon a fund's pretax profit. The hedge fund in Exhibit 1 earns 20% carry as soon as there are any profits. For private equity, there is no carried interest until the return after management fees exceeds 8%. The manager then gets the large majority of the incremental profit until his or her total share reaches 20%. The size and structure of carried interests and the amount of profit generated have a big impact on retention rates.

Income taxes are profit-sharing arrangements. In our scenarios, the dollars paid in income and capital gains tax rise and fall depending on the level of profit, but the tax rate remains constant. Profit and tax are proportionate: If you do not realize profits, you do not pay tax. In fact, the government shares your pain in many cases when investments lose value.[3]

Across all four fee structures and a range of return scenarios, we see that the 50% rule is violated. At low single-digit gross rates of return, all four fee structures have retention rates below 50%; under some scenarios, 100% of profits leak out in fees and taxes. This is painful but hardly surprising given the preferred return structure of management fees. As gross returns rise, the index fund is the first to hit a retention rate above 50%. The actively managed mutual fund hits the 50% retention rate at about 3% gross return. For hedge funds and private equity, the retention rate is zero until gross returns approach 3%. At 8% gross return, the hedge fund investor nets about 3%, and at all higher returns, the 50% rule remains in violation. The private equity investor does a bit better, netting 4% when the gross return is 8%, but gross returns must exceed 15% before the investor keeps more than 50% of profits. In all cases, the higher the management fee and the

EXHIBIT 2

How Fees and Tax Efficiency Affect Your Pocketbook



lower the tax efficiency of the investment strategy, the lower the retention rate and the greater the challenge the 50% rule presents.[4] In short, leakages hurt.

Looking at the problem a different way, one may ask: "If I wish to end up with a 5% return on my investment, net of fees and tax, what is the gross return that each of these vehicles must generate?" The answer is in Exhibit 2.

For 5% net, an index fund must generate 6.8%. A hedge fund must generate 12.9% to provide a taxable investor with the same net result because of the additional fees and taxes. This is a colossal difference in the highly competitive world of investing.[5] The required rates of return are not as great for private equity and an actively managed equity mutual fund, but they still present a real challenge.

TAXABLE INVESTORS ARE DISADVANTAGED RELATIVE TO TAX-EXEMPT INVESTORS

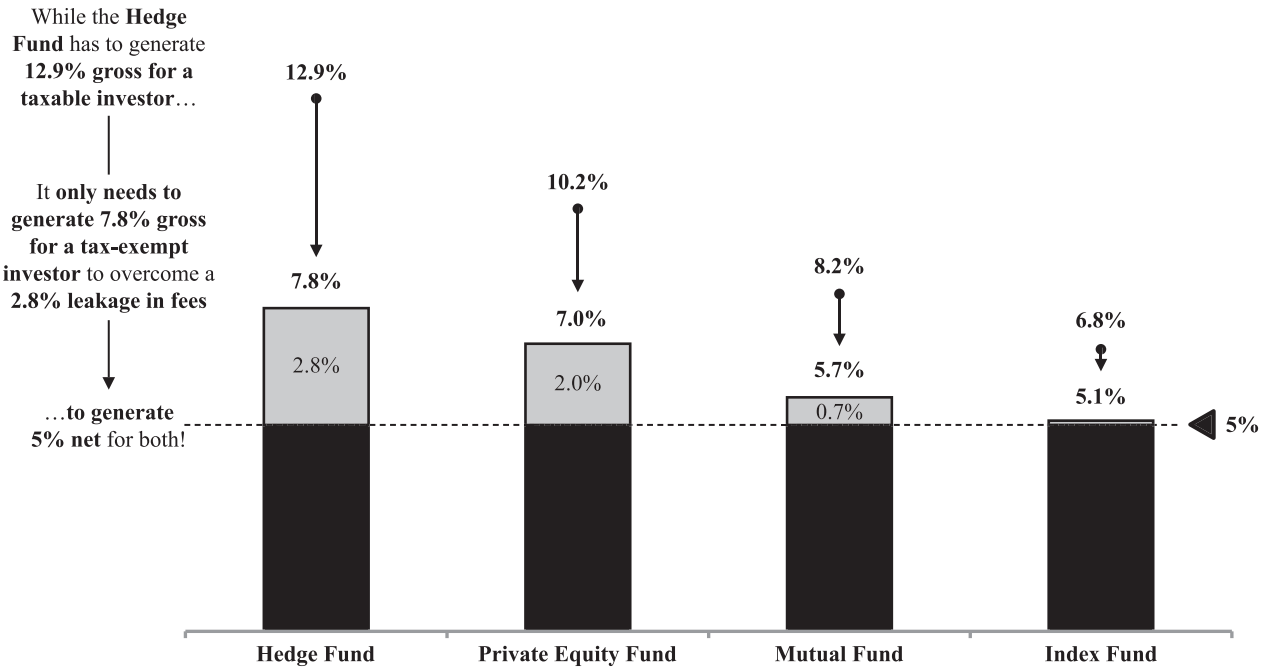
Tax-exempt investors—such as pension funds, endowments, governments, and sovereign wealth funds—get to keep a larger proportion of gross returns because they do not pay taxes. Exhibit 3 illustrates this advantage by depicting how much less a tax-exempt investor needs to earn to arrive at the same net return as a taxable investor.

In a profitable investment, the wider the retention rate spread between the taxable and tax-exempt investors—or the difference between what each gets to keep for the same level of gross return—the greater the latter's structural advantage. Tax-exempt investors can take less risk to generate the same net return, or they can take the same risk to generate a higher net return, enabling them to disregard the effects that active security selection and portfolio turnover have on retention rates. Investment strategies that produce more income, higher dividend yields, or higher taxable turnover tilt the advantage to tax-exempt investors even further.

What if the investment loses money? Does the tax deductibility of losses not reduce the effective downside risk for taxable investors and counterbalance their disadvantage to the upside? The answer is: not proportionately, and sometimes not at all, for several reasons. First, many investments generate taxable dividend or coupon income even if the principal value of the investment declines. Second, the limits on the tax deductibility of management fees on hedge funds and private equity

EXHIBIT 3

For the Same Investment, a Tax-Exempt Investor Keeps Much More than a Taxable One



funds further exacerbate downside risk for taxable investors (Dougherty [2003]). Only non-dividend-paying securities owned in a mutual fund or held directly in an account with no fee receive tax treatment that is symmetrical both to the downside and the upside and does not put taxable investors at a disadvantage relative to tax-exempt investors.[6]

A WORD ON INFLATION AND INTEREST RATES

The retention rates in Exhibit 1 shift down and flatten when adjusted for the rate of inflation. The higher the inflation rate, the further down the curves move. Because the *x*-axis measures the gross rate of return, the relative positions of the various curves do not change, and neither does the disadvantage relative to tax-exempt investors (Mladina [2011]).

In an environment of low inflation accompanied by low short-term interest rates, the relative disadvantage of taxable clients is reduced. When short-term interest rates are at or near zero, there is little or no tax to pay on cash investments, but taxable investors still must pay tax on successful investments. Therefore, they have relatively more incentive to hold cash in such an environment than they do when rates are higher.

IMPLICATIONS FOR INVESTMENT STRATEGY

Taxable investors need to think differently about how they design their investment programs. Specifically, taxes, fees, inflation, and interest rates should significantly affect investment strategy design. Taxable investors should design portfolios and evaluate investment opportunities on risk, reward, and expectations of how much of the profits they will actually keep, not just on reported returns before taxes.

The tax code incentivizes tax-paying investors to focus on investments that generate long-term capital gains and to defer realization of those gains for as long as possible. This is true for all taxpayers, and it is especially true for taxpayers in the highest tax brackets. This article assumes a holding period for all investments of four years. For investments held for longer periods, the benefits of tax deferral and compounding are even greater, shifting retention rates further to the benefit of the investor. Over a 20-year time horizon,

a buy-and-hold strategy can generate 160 to 380 basis points of additional benefit per year over an investment strategy that generates the same result but has higher turnover (Lucas and Sanz [2016]).

Given the tax code and the investment landscape, it is particularly challenging to design investment strategies with muted volatility and retention rates that meet or exceed 50%. Many investors have allocations to defensive strategies intended to hold or increase their value when equities decline because they are uncomfortable with equities' volatility or because they have high spending rates that make it imprudent to employ higher investment risk. Traditionally, fixed income—especially municipal bonds—played this defensive role. Today, however, with interest rates so low, investors are looking for volatility-dampening alternatives like absolute return hedge funds and others that hold promise for higher returns. Because these investments have among the worst retention rates for taxable investors, they may lower net returns and raise risk—the opposite of what investors try to achieve.

IMPLICATIONS FOR ADVISORS AND THEIR INCENTIVES

Today, in the wealth management industry, few client service models, investment strategies, or manager selection processes intently focus on optimizing clients' after-tax returns. The incentives just are not great. Active investment managers have little economic incentive to focus on after-tax performance. Why would they when most of their investor base is made up of tax-exempt institutions and their performance looks invariably better on a pretax basis (Stein [1998])? The exception is mutual funds, which must provide estimates of after-tax results; however, these data are not widely aggregated, analyzed, and marketed (Reichenstein [2007]). Furthermore, calculating after-tax returns for clients is no easy task, even with the required data. For all these reasons, reporting of pretax returns drives marketing, most academic research, manager rankings, the design of performance measurement platforms, and, ultimately, your perception of your own performance.

CONCLUSION

This focus on pretax returns puts the tax-paying client at a real information disadvantage. Unfortunately, true measurements of performance after fees and taxes, and of value added, are virtually impossible using standard data and analysis. For a start, advisors should be aware of the drivers of retention rates when designing investment policy and when analyzing investments for taxable investors. We are confident results will improve if they analyze retention rates, are guided by the 50% rule, and remain sensitive to retention rate spreads between taxable and tax-exempt investors.

With their advisor's help, taxable investors should optimize their portfolios to maximize after-tax returns, not the pre-tax metrics that are widely followed. What should ultimately matter is how many dollars the investor gets to keep, not how good the widely reported percentage returns appear.

ENDNOTES

[1]We have tried to use middle-of-the-road assumptions and estimates to construct the exhibits in this article. Unless otherwise specified, each assumes Illinois and federal taxes payable at the highest 2016 AMT rates (27.4% for long-term gains and dividends and 35.4% for short-term gains and income). Tax rates in this article are courtesy of Aperio Group, LLC's, "Combined State and Federal Income Tax Rates for 2016." Capital is invested in all funds evenly over four years, and each tranche is sold five years after investment. Investments grow at the same percentage indicated in the exhibit each year; we have assumed linear growth for simplicity. In real life, taxes and some fee structure features, such as high-water marks for hedge funds, will make retention rates vary depending on the pattern of annual gross returns. The index fund has a management fee of 0.10% (tax deductible) and an annual dividend of 2.0%, and all capital gains are taxed at the end of year five at 27.4%. The mutual fund has a fee of 0.65% (tax deductible) and an annual dividend of 2.0%; capital gains are taxed each year, 50% at 27.4% and 50% at 35.4%. The private equity fund has a 1.5% management fee on committed capital through year four, then on the cost of invested capital in years five through eight, 20% carried interest on profits above the return of capital, fees, and an 8% hurdle, with an 80% General Partner catch up; no dividends are paid, and all gains are taxed at 27.4%. The hedge fund has a 1.5% management fee and 20% carried interest; all profits are taxed each year, half at 27.4% and half at 35.4%. The model assumes the previous high-water mark is surpassed each year. On the x-axis is the gross rate of return of investments before any fees or carried interest. The y-axis is the retention rate after fees and taxes are paid.

[2]Most taxable investors who have enough wealth to invest directly in hedge funds and private equity are subject to alternative minimum tax. In turn, there are substantial limitations on the ability to use the management fees of these vehicles to reduce taxes (Gordon [2004]). Tax implications of investments can vary substantially from investor to investor. We highly recommend consulting with tax advisors on the implications of this article's assumptions and conclusions for individual circumstances.

[3]In our analysis, we apply the highest marginal tax rates for an Illinois resident; in specific application, each investor's overall level of taxable income will affect his or her overall retention rates. All other things being equal, the lower the level of income, the lower the tax rates and the higher the retention rates. For example, an individual who has $5 million in taxable income, 100% of which is investment income, will have a tax rate approximately 3.5 to 5.5 percentage points greater than someone with $1 million in taxable income. Below $1 million in taxable income, retention rates rise further. There would be a similar fall in tax rates if an Illinois resident moved to a state with no state income tax (or it could rise if the individual resides in a state with a higher state tax rate). As taxable income falls, the lines reflected in Exhibit 1 generally rise and may cross (further) above the 50% rule line at lower IRRs. On the other hand, the higher the level of income, the higher the tax rates and the greater the value of sound investment strategies that enable the deferral of long-term capital gains for as long as possible.

[4]For ordinary-rate taxpayers, the selection of investment strategy and structure has an even bigger impact on retention rates than it does for AMT taxpayers. For ordinary-rate payers in Illinois, the 19.6% rate spread between tax rates on income and short-term capital gains (46.7%) versus long-term capital gains (27.1%) is almost 2.5 times the 9.0% spread for AMT taxpayers.

[5]Ibbotson, Chen, and Zhu [2011] estimated that the equal-weighted average hedge fund generated fees of 3.43% and alpha of 3.00% from January 1995 to December 2009.

[6]This assumes that the investor has realized gains that can offset taxable losses.

REFERENCES

Dougherty, E.H. "Tax Implications of Hedge Fund Investments." AIMR Conference Proceedings, July 2003.

Gordon, R.N. "Making Hedge Funds More Tax Efficient." *The Journal of Wealth Management*, Vol. 7, No. 1 (2004), pp. 75-80.

Ibbotson, R.G., P. Chen, and K.X. Zhu. "The ABCs of Hedge Funds: Alphas, Betas and Costs." *Financial Analysts Journal*, Vol. 67, No. 1 (2011), pp. 15-25.

Lewis, M. *The Undoing Project: A Friendship That Changed Our Minds*. New York: W.W. Norton, 2016.

Lucas, S.E., and A. Sanz. "Pick Your Battles: The Intersection of Investment Strategy, Tax and Compounding Returns." *The Journal of Wealth Management*, Vol. 19, No. 2 (2016), p. 14.

Mladina, P. "Portfolio Implications of Triple Net Returns." *The Journal of Wealth Management*, Vol. 13, No. 4 (2011), pp. 51-59.

Reichenstein, W.R. "Note on 'Applying After-Tax Asset Allocation.'" *The Journal of Wealth Management*, Vol. 10, No. 2 (2007), pp. 94-97.

Stein, D.M. "Measuring and Evaluating Portfolio Performance after Taxes." *The Journal of Portfolio Management*, Vol. 24, No. 2 (1998), pp. 117-124.

To order reprints of this article, please contact Dewey Palmieri at dpalmieri@iijournals.com or 212-224-3675.